Document Number 1

Entry 1 of 1 File: USPT Jul 25, 1995

DOCUMENT-IDENTIFIER: US 5436294 A
TITLE: Polyphthalamide blends

BSPR:
Suitable dienes for use in the preparation of ethylene-alpha-olefin-diene terpolymers are non-conjugated dienes having 4 to about 24 carbon atoms, examples of which include 1,4-hexadiene, dicyclopentadiene and alkylidene norbornenes such as 5-ethylidene-2-norbornene. Mole fractions of ethylene units and higher alpha-olefin units in the ethylene-higher alpha-olefin copolymer rubbers generally range from about 40:60 to about 95:5. Ethylene-propylene copolymers having about 70 to about 95 mole percent ethylene units and about 5 to about 30 mole percent propylene units are preferred among these. In terpolymers comprising polymerized diene monomer, the diene unit content can range up to about 10 mole percent with about 1 to about 5 mole percent being preferred. Also suitable are the corresponding block copolymers comprising two or more polymeric blocks, each formed of one or more monomers selected from ethylene and the higher alpha-olefin. The functionalized polyolefins will generally further comprise about 0.1 to about 10 weight percent functional groups. Specific examples of suitable, commercially-produced functionalized polyolefins include maleic anhydride-functionalized ethylene-propylene copolymer rubber comprising about 0.6 weight percent pendant succinic anhydride groups, identified as EXXELOR.RTM. VA 1801 from Exxon Chemical Company; and maleic anhydride-functionalized ethylene-propylene-diene monomer terpolymer rubber comprising about 1 weight percent pendant succinic anhydride groups, identified as ROYALTUF 465 from the Uniroyal Company.

DEPR:
CarxboxyEPDM: Anhydride-grafted EPDM (ethylene-polypropylene-diene monomer terpolymer) having an ethylene/propylene ratio of 75/25 and a 0.4 wt % bound maleic anhydride content, obtained as Royaltuf 465A from Uniroyal.

DEPL:
Again, the ductility of the blends with functionalized rubbery impact modifier as in Example 14 is good, while the addition of polypropylene as in Examples 15 and 17 affords good ductility and strength together with acceptable rigidity. The combination of polypropylene with carboxylated polypropylene, Examples 16 and 18, provides significantly better ductility as reflected by the increase in elongation, yet without a concomitant reduction in rigidity and strength properties. Note also the good ductility, rigidity and strength properties of Example 19, based on a formulation having a lower level of a different polyphthalamide. Similarly, formulations of this polyphthalamide with a functionalized EPDM rubbery impact modifier as in Example 20, and with a mixture of functionalized SEBS and functionalized EPDM rubbery impact modifiers as in Example 21, also exhibit good ductility, strength and rigidity.

CLPR:
3. The blend of claim 1 wherein the functionalized rubbery impact

modifier is selected from the group consisting of maleated ethylene-propylene copolymer, maleated SEBS block polymer and maleated EPDM.

CLPR:
9. A method for improving the rigidity of impact-modified polyphthalamide blends comprising (a) from about 45 to about 90 wt % polyphthalamide having a Tg greater than about 75.degree. C. and a Tm greater than about 270.degree. C. and containing aliphatic diamine terephthalamide units represented by the formula: ##STR6## wherein R comprises at least one aliphatic C.sub.4 -C.sub.14 hydrocarbyl radical; and (b) from about 5 to about 20 wt % functionalized rubbery impact modifier selected from the group consisting of maleated ethylene-propylene copolymer, maleated SEBS block polymer and maleated EPDM, said method comprising the step of compounding the polyphthalamide with said functionalized rubbery impact modifier and with from about 5 to about 30 wt % polypropylene and from 0 to about 20 wt % of carboxyl-modified polyolefin, based on total resinous components.

Document Number 1

Entry 1 of 5 File: USPT Jan 20, 1998

DOCUMENT-IDENTIFIER: US 5710216 A
TITLE: Thermoplastic molding materials based on partly aromatic polyamides and polymethacrylamides

BSPR:
The ethylene/propylene (EPM) and ethylene/propylene/diene (EPDM) rubbers, which preferably have a ratio of ethylene units to propylene units of from 40:60 to 90:10, may be mentioned as a first preferred group.

BSPR:
The Mooney viscosities (MLI+4/100.degree. C.) of such, preferably uncrosslinked, EPM and EPDM rubbers (gel contents generally less than 1% by weight) are preferably from 25 to 100, in particular from 35 to 90 (measured using the large rotor after a running time of 4 minutes at 100.degree. C. according to DIN 53 523).

BSPR:
EPM rubbers generally have virtually no double bonds, whereas EPDM rubbers may have from 1 to 20 double bonds per 100 carbon atoms.

BSPR:
Examples of diene monomers e.sub.2) for EPDM rubbers are conjugated dienes, such as isoprene and butadiene, nonconjugated dienes of 5 to 25 carbon atoms, such as penta-1,4-diene, hexa-1,4-diene, hexa-1,5-diene, 2,5-dimethylhexa-1,5-diene and octa-1,4-diene, cyclic dienes, such as cyclopentadiene, cyclohexadienes, cyclooctadienes and dicyclopentadiene, and alkenylnorbornenes, such as 5-ethylidene-2-norbornene, 5-butylidene-2-norbornene, 2-methallyl-5-norbornene and 2-isopropenyl-5-norbornene, and tricyclodienes, such as 3-methyltricyclo(5.2.1.0.2.6)-3,8-decadiene, or mixtures thereof. Hexa-1,5-diene, 5-ethylidenenorbornene and dicyclopentadiene are preferred. The diene content of the EPDM rubbers is preferably from 0.5 bis 50, in particular from 2 to 20, particularly preferably from 3 to 15, % by weight, based on the total weight of the olefin polymer. EPM and EPDM rubbers can preferably also be grafted with reactive carboxylic acids or derivatives thereof. Particular examples of these are acrylic acid, methacrylic acid and derivatives thereof as well as maleic anhydride.

Search Results - Record(s) 1 through 5 of 5 returned.

1. Document ID: US 5710216 A

Entry 1 of 5 File: USPT Jan 20, 1998

US-PAT-NO: 5710216
DOCUMENT-IDENTIFIER: US 5710216 A

TITLE: Thermoplastic molding materials based on partly aromatic polyamides and polymethacrylamides
DATE-ISSUED: January 20, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Weber; Martin	Neustadt	N/A	N/A	DEX
Fisch; Herbert	Wachenheim	N/A	N/A	DEX
Pipper; Gunter	Bad Durkheim	N/A	N/A	DEX
Gottschalk; Axel	Neustadt	N/A	N/A	DEX

US-CL-CURRENT: 525/132; 525/183, 525/187, 525/190, 525/66, 525/80

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Image

2. Document ID: US 5541267 A

Entry 2 of 5 File: USPT Jul 30, 1996

US-PAT-NO: 5541267
DOCUMENT-IDENTIFIER: US 5541267 A

TITLE: Polyamide compositions comprising aliphatic polyamide and an aromatic polyamide oligomer having improved moisture resistance
DATE-ISSUED: July 30, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Akkapeddi; Murali K.	Morristown	N/A	N/A	N/A
Glans; Jeffrey H.	Morristown	N/A	N/A	N/A
Dege; Gerald J.	Flanders	NJ	N/A	N/A
Chung; Sengshiu J.	Parsippany	NJ	N/A	N/A

US-CL-CURRENT: 525/432; 524/504, 524/538, 525/183, 525/424, 525/66

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Image

3. Document ID: JP 05010481 A

Entry 3 of 5 File: DWPI Jan 19, 1993

DERWENT-ACC-NO: 1993-062277
DERWENT-WEEK: 199308

TITLE: Hose for high temp. parts of automobile radiators - comprises inner rubber tube layer, flexible rubber layer, reinforcing aromatic polyamide layer, and outer skin rubber layer

PRIORITY-DATA:
1991JP-0157073 June 27, 1991

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 05010481 A	January 19, 1993	N/A	003	F16L011/08

INT-CL (IPC): F16L 11/08

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Image

4. Document ID: JP 04366083 A

Entry 4 of 5 File: DWPI Dec 17, 1992

DERWENT-ACC-NO: 1993-040662
DERWENT-WEEK: 199305

TITLE: Heat resistant hose e.g. for car radiators - comprises inner tube, expanded rubber layer, reinforcing fibre layer of aromatic polyamide, and outer skin rubber layer

PRIORITY-DATA:
1991JP-0142863 June 14, 1991

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 04366083 A	December 17, 1992	N/A	003	F16L011/08

INT-CL (IPC): F16L 11/08

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Image

5. Document ID: JP 02145874 A

Entry 5 of 5 File: DWPI Jun 5, 1990

DERWENT-ACC-NO: 1990-214647
DERWENT-WEEK: 199028

TITLE: Treating aromatic polyamide-fibre reinforcing rubber - by initially treating with epoxy! cpd. followed by adhesive for adhering fibre

PRIORITY-DATA:
1988JP-0291905 November 17, 1988

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 02145874 A	June 5, 1990	N/A	000	N/A

INT-CL (IPC): C08J 5/06; C09J 5/02; D06M 13/11; D06M 15/69; D06M 101/36

Term	Documents
ETHYLENE	414261
ETHYLENES	1305
PROPYLENE	226858
PROPYLENES	310
DIENE	59905
DIENES	17989
MONOMER	256570
MONOMERS	152373
EPDM	14310
EPDMS	148
((ETHYLENE PROPYLENE DIENE MONOMER OR EPDM) AND AROMATIC POLYAMIDE [TI]).ALL.	5

There are more results than shown above, click here to view the entire set.

Display 10 Documents including document number 5

Display Format: CIT Change Format